

What is claimed is:

1. A drive housing for a disk drive having a storage disk having a storage surface, the drive housing comprising:

5 a housing shield positioned near the storage disk, the housing shield being sized, shaped and formed from material so that the housing shield has an attenuation of field of at least approximately 10 dB.

10 2. The drive housing of claim 1 wherein the housing shield includes a base shield portion and a cover shield portion that are positioned substantially parallel to the storage surface of the storage disk, and wherein the storage disk is positioned substantially between the cover shield portion and the base shield portion.

15 3. The drive housing of claim 2 wherein the cover shield portion and the base shield portion are sized and shaped to shield the storage disk from an external magnetic field.

20 4. The drive housing of claim 2 wherein the cover shield portion and the base shield portion are sized and shaped to shield the storage disk from an external magnetic field that is substantially perpendicular to the storage surface of the storage disk.

25 5. The drive housing of claim 2 wherein the storage disk is positioned entirely between a superimposition of the cover shield portion onto the base shield portion.

30 6. The drive housing of claim 2 wherein the housing shield further includes a wall shield portion that secures the cover shield portion to the base shield portion.

7. The drive housing of claim 6 wherein the wall shield portion is positioned substantially perpendicular to the storage surface of the storage disk.

8. The drive housing of claim 2 wherein the housing shield further includes a plurality of wall shield portions that are substantially perpendicular to the storage surface of the storage disk, and wherein the wall shield portions secure the cover shield portion to the base shield portion.

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9. The drive housing of claim 1 wherein the housing shield has an attenuation of field of at least approximately 25 dB.

10. The drive housing of claim 1 wherein the housing shield has an attenuation of field of at least approximately 50 dB.

11. The drive housing of claim 1 wherein the housing shield is substantially formed from a nickel-iron alloy having a relative permeability of at least approximately 50,000.

12. A disk drive including the drive housing of claim 1 and a storage disk.

13. The disk drive of claim 12 wherein the storage disk is a magnetic storage disk.

14. The disk drive of claim 12 wherein the disk drive is a perpendicular recording drive.

15. The drive housing of claim 1 wherein the housing shield comprises:
a base shield portion that is sized and shaped to shield the storage
disk from an external magnetic field, the base shield being positioned
substantially parallel to the storage surface of the storage disk;
5 a cover shield portion that is sized and shaped to shield the storage
disk from the external magnetic field, the cover shield being positioned
substantially parallel to the storage surface of the storage disk;
a plurality of wall shield portions that are substantially perpendicular to
10 the storage surface of the storage disk, and wherein the wall shield portions
secure the cover shield portion to the base shield portion; and
wherein the housing shield has an attenuation of field of at least
15 approximately 25 dB.

15. A drive housing for a disk drive, the disk drive including a magnetic
storage disk having a disk surface, the drive housing comprising:
a housing shield positioned near the storage disk, the housing shield
being formed from material having a relative permeability of at least
20 approximately 50,000.

17. The drive housing of claim 16 wherein the housing shield has a
thickness of at least approximately 0.30 millimeters.

18. The drive housing of claim 17 wherein the housing shield is
25 substantially formed from material having a relative permeability of at least
approximately 100,000.

19. The drive housing of claim 16 wherein the housing shield further
includes a base shield portion and a cover shield portion that are positioned
30 substantially parallel to the disk surface of the magnetic storage disk, and wherein
the cover shield portion is positioned so that the storage disk is substantially
between the cover shield portion and the base shield portion.

20. The drive housing of claim 17 wherein the base shield portion and the cover shield portion are sized and shaped to shield the magnetic storage disk from an external magnetic field that is substantially perpendicular to the storage surface of the storage disk.

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21. The drive housing of claim 20 wherein the magnetic storage disk is positioned entirely between a superimposition of the cover shield portion onto the base shield portion.

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22. The drive housing of claim 20 wherein the housing shield further includes a wall shield portion that secures the cover shield portion to the base shield portion, wherein the wall shield portion is positioned substantially perpendicular to the storage surface of the storage disk.

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23. The drive housing of claim 17 wherein the housing shield is formed substantially from a nickel-iron alloy.

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24. The drive housing of claim 17 wherein the housing shield is sized, shaped and formed from material so that the housing shield has an attenuation of field of at least approximately 10 dB.

25. A disk drive for storing data, the disk drive comprising:
a storage disk including a storage surface; and
a drive housing that encircles the storage disk, the drive housing
including a housing shield positioned near the storage disk, the housing
shield having an attenuation of field of at least approximately 25 dB and
including (i) a base shield portion that is positioned substantially parallel to the
storage surface of the storage disk, (ii) a cover shield portion that are
positioned substantially parallel to the storage surface of the storage disk, the
storage disk being positioned substantially between the cover shield portion
and the base shield portion, and (iii) a wall shield portion that secures the
cover shield portion to the base shield portion, the wall shield portion being
positioned substantially perpendicular to the storage surface of the storage
disk; wherein each of the shield portions is formed from material having a
relative permeability of at least approximately 50,000.

15. *See*
26. The drive housing of claim 25 wherein the housing shield has an
attenuation of field of at least approximately 50 dB and each of the shield portions is
formed from material having a relative permeability of at least approximately
100,000.

20. 27. A method of shielding a magnetic storage disk from an external
magnetic field, the magnetic storage disk having a storage surface, the method
including the steps of:

25. providing a magnetic storage disk; and

enclosing the storage disk in a drive housing, the drive housing
including a housing shield with an attenuation of field of at least 10 dB.

30. 28. The method of claim 27 wherein the step of enclosing the storage disk
includes providing the housing shield with (i) a base shield portion and a spaced-
apart cover shield portion that are positioned substantially parallel to the storage
surface of the storage disk, and (ii) a wall shield portion that connects the base
shield portion to the cover shield portion; and wherein the storage disk is positioned
substantially between the base shield portion and the cover shield portion.